

REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the above amendments and following remarks is respectfully requested.

Claims 1-24 and 27-51 are pending in this application. Claims 28-51 are withdrawn from consideration. In the outstanding Office Action, Claims 1-24 and 27 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,634,982 to Miki.

With respect to the rejection of the claims under 35 U.S.C. § 102, that rejection is respectfully traversed. In particular, independent Claims 1 and 20 similarly recite in part, a pressure lowering means for lowering said pressure by a preset value, and a pressure setting means for setting the pressure to a value obtained by adding a pressure corresponding to the road surface input with a lowered minimum value of said pressure, in the case when the slip between said transmission members is not detected.

These features are not taught or rendered obvious by the applied art of Miki. As set forth in the independent claims, a pressure lowering means lowers the pressure by a preset value. The pressure is set in which a pressure corresponding to the road surface input is added to the lowered minimum value of the pressure. As such, the lowered minimum value of the pressure is adopted and the road surface input is added thereto. For this reason, even in case the slip is not detected in spite of lowering the pressure, the pressure setting a transmission torque capacity can be lowered relatively by utilizing the pressure value obtained in the course of detecting a slip by lowering the pressure.

In contrast, Miki discusses that in a continuously variable transmission, when the belt pinching pressure is high, torque transmission efficiency becomes low. While the belt pinching might be lowered, the torque transmitted in the continuously variable transmission may vary over a larger range than suitable when the vehicle encounters a rough road or when the accelerator pedal is depressed suddenly. As a result slippage occurs between the primary

pulley or the secondary pulley and the belt, which lowers the service life of the continuously variable transmission. Therefore, Miki teaches that the pinching pressure is increased by a certain allowance m to prevent slippage from occurring. That is, the hydraulic servo 135 is used to apply and change the pinching pressure for the belt 132. A hydraulic servo 133 is used to change the effective diameters of the primary pulley 126 and the secondary pulley 131, and the hydraulic servo 135 is used to apply the change in pinching pressure.

As shown in Fig. 1 of Miki, the torque variation estimation processing means 92 estimates whether or not the transmission torque will tend to vary easily during travel based on the shift schedule set in the shift schedule setting processing. Then the pinching pressure change processing means 93 corrects the allowance m and changes the pinching pressure for the belt 132 based on the estimation made by the torque variation estimation processing means 92. That is, the pinching pressure is increased when the transmission torque tends to vary easily, and the pinching pressure is decreased when the transmission torque hardly varies. Therefore, the correction value of the allowance m is set with variation of hydraulic pressure supplied to the hydraulic servos 133, 135, variation of engine torque, variation of the performance of the torque converter 106, and the like. As discussed in columns 14-15 of Miki, the correction values $\delta 1$ to $\delta 3$ are preset in accordance with the degree of the transmission torque variation. A gear shifting diagram can be selected based on whether the travel area is an urban road, a congested road, a suburban road, a mountain road, an uphill road, or an expressway. Therefore, the correction values $\delta 1$ to $\delta 3$ are set by estimating how the transmission torque will vary in the respective travel areas.

Thus, according to the teachings in Miki, the pinching pressure is prevented from constantly increasing because the transmission torque variation during travel is estimated to vary the allowance m . That is, the allowance m is increased when the transmission torque tends to vary easily and the pinching pressure is thereby increased, and the allowance m is

decreased when the transmission torque hardly varies and the pinching pressure is thereby lowered.

Accordingly, Miki fails to disclose or suggest all the features of the claimed invention. For example, one objective of the present invention is to provide a control system for a power transmission mechanism in which a transmission torque capacity between transmission members is set on the basis of a slip condition there between. The slip condition is characterized by a control of the case in which the slip between the transmission members is not detected in spite of lowering the pressure to a predetermined pressure, for the purpose of determining a lowest possible pressure within the range where the slip will not occur between the transmission members. Even if the pressure is lowered, there is a case in which the slip between the transmission members is not detected if the lowering amount is relatively small or the lowering of the pressure is restricted. However, the pressure during the lowering process can be detected. Therefore, according to one or more embodiments of the present invention, the lowered minimum value of the pressure obtained in the course of lowering the pressure is utilized in case the slip is not detected, in order to lower the pressure setting a transmission torque capacity within the range where an excessive slip will not occur between the transmission members. For this reason, according to the features of the claimed invention, the pressure can be lowered within the range where a slip is not caused by the road surface input when the vehicle is running, even in case the slip is not detected in spite of lowering the pressure to cause a slippage between the transmission members. Please see the disclosure at least at the last paragraph of page 23 of the present specification.

Further, it is respectfully submitted that the applied art does not teach or suggest, nor does the outstanding Office Action direct Applicants attention to such a teaching, the claim features for the pressure lowering means as set forth in the dependent claims. For example, Claim 2 recites that the pressure lowering means includes means for lowering a pressure

command value stepwise and keeping the pressure command value constant for a preset time period and for outputting a command signal to raise said pressure command value after lapse of the preset time period. Additionally, Claim 3 recites that the pressure lowering means includes means for lowering the pressure stepwise and then steplessly to a preset value. Again, these features are not taught or suggested in the applied art, nor does the outstanding Office Action cite to teaching in Miki for these features.

Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. § 102(b) is respectfully requested.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

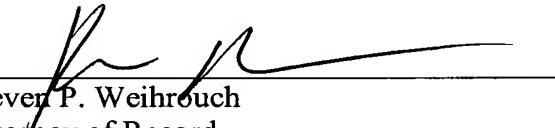
Respectfully submitted,

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